Original Research Article

Maternal and fetal outcome of twin gestation in tertiary care centre

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Abstract

Introduction: Even though higher complication for both maternal and fetal side multiple pregnancy gives pleasure to everyone, multiple births were much more common today than they were in the past. The prevalence may be 2-20/1000 births, however overall complications contributed to 83%.

Aim of the study: To assess maternal and fetal outcome in multi-fetal gestation, to evaluate incidence of multi-fetal gestation, to assess maternal outcome in multi-fetal gestation, to assess perinatal outcome in multiple pregnancy and to study the maternal and fetal complications in multiple pregnancy.

Materials and methods: Present study was the prospective observational study done in Department of Obstetrics and Gynecology, Rangaraya Medical College, Kakinada from January 2020 to March 2021.

Results: Total deliveries during the period were 11033, out of them multi-fetal gestations were 114, singleton pregnancies were 10919. Incidence of multi-fetal gestation during the study period was 1.03. Maximum number of multiple pregnancies occurred in the age group of 21-25 years. Most common complication was preterm, followed by hypertensive disorders and anemia.

Conclusion: In our study incidence of multiple pregnancy was 1.03. More cases were between the age group of 21-25 years. More cases were dichorionic type accounts for 92.2%, most common presentation was vertex-vertex accounts for 64%. Least common presentation was transverse-transverse. Out of 114 cases 15 cases had family history of twins and 24 cases had history of ovulation induction. Most common maternal complication was hypertensive disorders followed by anemia.

Key words

Maternal, Fetal, Outcome, Multi-fetal gestation.

Introduction

Even though higher complication for both maternal and fetal side multiple pregnancy gives pleasure to everyone, multiple births were much more common today than they were in the past. The prevalence may be 2-20/1000 births [1], however overall complications contributed to 83% [2].

Aim and objectives

- To assess maternal and fetal outcome in multi-fetal gestation, to evaluate incidence of multi-fetal gestation, to assess maternal outcome in multi-fetal gestation, to assess perinatal outcome in multiple pregnancy and to study the maternal and fetal complications in multiple pregnancy.

Materials and methods

Present study was the prospective observational study done in Department of Obstetrics and Gynecology, Rangaraya Medical College, Kakinada from January 2020 to March 2021.

Inclusion criteria: Those who attended with multiple pregnancy in Department of Obstetrics and Gynecology, Rangaraya Medical College, Kakinada.

Exclusion criteria: Those who were not given consent.

Results

Study period was from January 2020 to March 2021. Total deliveries during the period were 11033, out of them multi-fetal gestations were 114, singleton pregnancies were 10919. Incidence of multi-fetal gestation during the study period was 1.03. Maximum number of multiple pregnancies occurred in the age group of 21-25 years (**Table – 1**).

Coming to gestational age, 22.8% cases were delivered between 28-32 weeks, 37.75% cases were delivered between 33-36 weeks and only 45 cases were delivered after 37 weeks which was around 39.4%. 9 cases were MCDA which was 7.8% and 105 cases were DCDA which was around 92.2% (**Table – 2**).

Table – 1: Percentage of multiple pregnancy according to age.

Age in years	Percentage
<20	29.7%
21-25	44.7%
26-30	19.2%
>30	6.1%

Table – 2: No. of cases depends on mode of delivery.

Mode of delivery	No. of cases	%
NVD	60	52.6%
LSCS	54	47.3%

Table - 3: Number of cases according to the presentation.

Presentation	No. of cases	%
Vertex- vertex	73	64%
Vertex- breech	20	17.5%
Breech-vertex	9	8.2%
Breech-breech	10	8.7%
Vertex - compound	2	1.75%
Transverse-traseverse	2	1.75%

Table - 4: APGAR score.

1st twin	8-10	85.9%
	<7	14%
2nd twin	8-10	85.9%
	<7	14%

Maximum cases were presented in vertex – vertex. Presentation did not have any effect on perinatal outcome (**Table – 3**).

Out of all cases 71 cases were primi gravida which accounted for 62.2% and 43 cases were multigravida which accounted for 37.7%. Unbooked cases were 54 (47.3%) and booked cases were 60 (52.6%). 15 cases had family history and 20 cases have history of ovulation induction (**Table – 4**).

Most common complication was preterm, followed by hypertensive disorders and anaemia (**Table – 5**).

Table - 5: Distribution according to maternal complications.

Complication	No. of cases	%
Hypertensive disorder	22	19.2
GDM	5	4.3
Anemia	15	13.1
preterm	24	21
PROM	2	1.7
PPH	8	7
PCP- scar tenderness	4	3.5
Hyperthyroidism	5	4.3
UTI	7	6.1
No complications	22	19.2

Table - 6: Fetal complications.

Complication	1st twin cases	%	2nd twin cases	%
Normal	66	57	57	50
NICU admission	44	38.6	53	46.5
Birth asphyxia	10	8.7	17	14.9
Prematurity	24	21.1	24	21.1
IUGR	1O	8.7	12	10.6
IUD	4	3.5	4	3.5

Discussion

Multiple gestations occur either due to two or more fertilization events or single fertilization followed by splitting of zygote or combination of both. Global incidence was 4/ 1000 birth where as incidence in our study was 1.30. Etiology includes maternal age, race, heredity. Determination of chorionicity can be identified in 1st trimester scan before 10 weeks by number of gestational sacs, amniotic sacs and yolk sacs [3]. Lamda sign is seen dichorionic twins where as T sign is seen in mono chorionic twins [4].

Conclusion

In our study incidence of multiple pregnancy was 1.03. More cases were between the age group of 21-25 years. More cases were dichorionic type accounts for 92.2%, most common presentation was vertex-vertex accounts for 64%. Least common presentation was transverse- transverse. Out of 114 cases 15 cases had family history of twins and 24 cases had history of ovulation induction. Most common maternal complication was hypertensive disorders followed by anemia.

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